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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,067	03/19/2001	C. Kumar N. Patel	256/051	8999

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EXAMINER	
NASSER, ROBERT L	

ART UNIT	PAPER NUMBER
3736	7

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,067	PATEL ET AL.	
	Examiner	Art Unit	
	Robert L. Nasser	3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *10/2/2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44 and 46-56* is/are pending in the application.

4a) Of the above claim(s) *1-29,33,34,40-45,47-53,55 and 56* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-32,35-39 and 54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Applicant's election with traverse of group I, species 2, in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the claims are supported by all of the figures. This is not found persuasive because it is incorrect. For example, Claim 1 recites passing the beam through the chamber under 3 conditions. This is only disclosed with respect to figure 1. Claim 15 recites sweeping the frequencies through a range of frequencies. This is only disclosed with respect to figure 8.

The requirement is still deemed proper and is therefore made FINAL.

The examiner notes that applicant listed claims 1-45 and 47-55 as being drawn to the elected embodiment. However, as noted above, claims 1-14 and claim 52 are drawn to figure 1, species I and claims 15-29 and 53 are drawn to figure 8, species V. Additionally, claims 40-44 are drawn to figures 13 and 14, and not to the elected embodiment. In addition, claims 33 and 34 are not drawn to figure 3, as figure 3 is a breath analyzer. Also, claims 55 and 56 recite that the pressure in the chamber is varied. This is also not disclosed with respect to figure 3.

Accordingly, claims 1-29, 33, 34, 40-45, 47-53, and 55-56 are withdrawn from consideration.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

> only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 30-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Berry. Berry shows a method of measuring the concentration of volatile organic markers, VOCs, in a breath sample, including admitting first a reference sample (see column 8 line 59 and the following passage) is admitted to a measuring chamber and then a sample of breath gas, with both samples, passing tunable radiation tuned to an absorption peak of the VOC through the chamber, measuring both photoacoustic emissions with microphone 34 and power of the incident beam with sensor 51, and using both measurements to determine the concentration of the substance of interest, e.g. the VOC.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silkoff et al in view of Berry. Silkoff et al shows teaches that he concentrations ammonia and nitric oxide in human breath are indicators of disease. It does not use the detection method recited. Berry, as discussed above, further ruses the above recited detection method to locate disease markers in breath. Hence, it would have been obvious to modify Silkoff to use the detection method of Berry, as it is merely the substitution of one known method for another.

Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berry in view of Risby et al. Berry is a breath test that detects volatile organic compounds in human breath as disease markers. Risby et al further teaches that methane (alkane), alcohol, and ketones are known biomarkers for detecting diseases from a breath sample. Hence, it would have been obvious to modify Berry to detect the VOCs taught by Risby, as it is merely the substitution of one known VOC for another.

Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berry in view of Bell. Berry teaches using both power and optoacoustic output to determine the concentration, but does not disclose the formula. Bell teaches the claimed method, in column 30, with respect to element 25. As such, it would have been obvious to modify Berry to use the method of determining the concentration of Bell, as it is merely the substitution of one known equivalent method for another.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chou, Murnick , Eckstrom, Loebach, and Te Lintel Hekkert et al all show photoacoustic breath analyzers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is (703) 308-3251. The examiner can normally be reached on Mon-Fri, variable hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (703) 308-3130. The fax phone

number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Robert L. Nasser
Primary Examiner
Art Unit 3736

RLN
January 8, 2004